Construction and Post Construction Plan for MS4 Compliance

January 2016
Construction and Post Construction Plan for MS4 Compliance

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### 1.0 Introduction

This Construction/Post Construction Plan was prepared to fulfill requirements of the Municipal Separate Storm Sewer System (MS4) permit issued to Texas State University on November 12, 2014 by the Texas Commission on Environmental Quality (TCEQ).

MS4 Permit TXR040427 issued by the TCEQ specifies that the Operator of the MS4 (Director of EHSRM) is required to implement all requirements of the General MS4 Permit TXR040000 and those minimum control measures and best management practices detailed in the Stormwater Management Program (SWMP) dated following the goals and milestones presented in the SWMP.

This Construction and Post Construction Plan describes practices and procedures for Texas State University to follow to comply with permit requirements in Part III, Section B.3 of the General MS4 Permit, dated December 13, 2013 and in Section 4.2 of the Stormwater Management Program dated May 2014. The permit and Stormwater Management Program will be renewed every 5 years.
2.0  UPPS 04.05.16
01. POLICY STATEMENTS

01.01 Texas State University is a public agency designated as a regulated entity under the Phase II Municipal Separate Storm Sewer System (MS4) General Permit TXR040000. This permit authorizes stormwater discharge directly to surface water in the state with monitoring requirements and other conditions set forth in this general permit. It applies to the campus boundaries located within urbanized areas. This policy satisfies the General MS4 Authority requirement of the Stormwater Management Program (SWMP).

01.02 The MS4 General Permit is administered through the Texas Commission on Environmental Quality (TCEQ). The program is delegated under the U.S. Environmental Protection Agency in accordance with statutory provisions of Section 402(p)(3)(B) of the Clean Water Act. The university will comply with all federal and state requirements under this permit.

02. DEFINITIONS

02.01 Best Management Practices (BMPs) – schedules of activities, prohibitions of practices, maintenance procedures, structural controls, and other management practices to prevent or reduce the discharge of pollutants. BMPs also include treatment requirements, operating procedures, and practices to control runoff; spills or leaks; waste disposal; or drainage from raw material storage areas.

02.02 Construction Activity – soil disturbance, including clearing, grading, and excavating, not including routine maintenance, that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site (e.g. the routine grading of existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing right-of-ways, and similar maintenance activities). Regulated construction activity is defined in terms of small and large construction activity.

02.03 Control Measure – any BMP or other method used to prevent or reduce the discharge of pollutants to waters in the state.

02.04 Conveyance – curbs, gutters, man-made channels and ditches, drains, pipes, and other constructed features designed or used for flood control or to transport stormwater runoff.

02.05 Hyper-chlorinated Water – water resulting from hyper-chlorination of waterlines or vessels with a chlorine concentration greater than 10 milligrams per liter (mg/L).

02.06 Illicit Connection – any man-made conveyance connecting an illicit discharge directly to a
municipal separate storm sewer.

02.07 Illicit Discharge – any discharge to a municipal separate storm sewer that is not entirely composed of stormwater. These may include, but are not limited to, chemicals or petroleum hydrocarbons, food waste from compactors or dumpsters, cleaning solutions, street wash down containing spilled chemicals, container washout (paint or pesticide), utility pipe cleaning solutions, high temperature water, concrete washout water, or sewage.

02.08 Large Construction Activity – construction activities including clearing, grading, or excavating that result in land disturbances equal to or greater than five acres of land. Large construction activities also include the disturbance of less than five acres of total land area that is part of a common plan of development or sale if the larger common plan will ultimately disturb greater than five acres of land. Large construction activities do not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site, for example, the routine grading of existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing right-of-ways, and similar maintenance activities.

02.09 Municipal Separate Storm Sewer System (MS4) – a publicly-owned or operated stormwater drainage system that is designed to collect or convey stormwater and includes, but is not limited to, storm drains, pipes, ditches, or gutters.

02.10 Noncompliance Issue – a discharge of a pollutant to the MS4 through an illicit discharge, illicit construction runoff, or both, or the failure to maintain or install a BMP, which may result in the imminent discharge of a pollutant to the MS4.

02.11 Pollutant – In accordance with the Texas Water Code § 26.001(13), a pollutant includes the following: dredged soil, solid waste, incinerator residue, sewage, garbage, sewage sludge, filter backwash, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, or agricultural waste discharged to waters in the state.

02.12 Post-Construction BMPs – engineered structures or features to treat stormwater runoff from a developed site following construction. These may include detention ponds, in-ground treatment units, low-impact development (LID) features, cisterns, or swales.

02.13 Qualified Personnel – persons with credible certifications, training, or skills, such as a Certified Erosion, Sedimentation, and Storm Water inspector (CESSWI) or a Certified inspector of Sediment and Erosion Control (CISEC). Other equivalent certifications which demonstrate proficiency in evaluating, interpreting, and implementing BMPs and elements of the Storm Water Pollution Prevention Plan (SWPPP) may be approved by the MS4 operator.

02.14 Responsible Department – a department identified in the SWMP as a responsible party or key personnel and having the potential to eliminate or minimize the discharge of pollutants to the MS4 through the use of appropriate BMPs and oversight of contracting services to that department.

02.15 Small Construction Activity – construction activities including clearing, grading, or excavating that result in land disturbances of equal to or greater than one acre and less than five acres of land. Small construction activities also include the disturbance of less than one acre of total land area that is part of a common plan of development or sale if the larger common plan will ultimately disturb greater than one acre and less than five acres of land. Small construction
activities do not include routine maintenance that is performed to maintain the original line and
grade, hydraulic capacity, or original purpose of the site (e.g., the routine grading of existing
dirt roads, asphalt overlays of existing roads, the routine clearing of existing right-of-ways, and
similar maintenance activities).

02.16 Stormwater – precipitation such as rain or snow that does not infiltrate into the ground surface.

02.17 Stormwater Management Program (SWMP) – a comprehensive program to manage the quality of
discharges from the MS4.

02.18 Stormwater Pollution Prevention Plan (SWPPP) – a plan developed for construction sites
greater than one acre in size prior to site disturbing activities. Required by Construction
General Permit TXR150000. All SWPPPs will be prepared by a person with credible
certifications or skills, such as a Certified Professional in Erosion and Sediment Control
(CPESC), a professional engineer registered in the state of Texas and having competence in
this area, or other registered professional with competence in this area.

02.19 Texas Pollutant Discharge Elimination System (TPDES) – the state program issuing, amending,
terminating, monitoring, and enforcing stormwater and other types of discharge permits.

02.20 Urbanized Area (UA) – an area of high population density that may include multiple small MS4s
as defined and used by the U.S. Census Bureau in the 2000 and the 2010 Decennial Census.

03. PROCEDURES

03.01 Illicit Discharge Prohibition

a. Illicit discharges to the MS4, or to soil or water are prohibited.

b. Emergency response to accidental spills of oil or hazardous waste chemicals will follow
procedures in the university’s Spill Prevention Control and Countermeasures Plan (SPCC)
and Hazardous Materials and Hazardous Waste Management Plan (found in UPPS No.
04.05.15, Public Safety and Health).

c. Illicit discharges will be stopped immediately upon detection.

d. Allowable non-stormwater discharges to the MS4 are listed in the SWMP.

03.02 Erosion Control From Construction Sites

a. All new construction and redevelopment of existing sites will use erosion control BMPs to
minimize soil loss from the site. The director of Facilities Planning, Design, and
Construction (FPDC) or other responsible department’s qualified personnel has the primary
responsibility to inspect these controls and confirm that they are maintained by the
contractor per the construction documents. Qualified personnel in the Environmental
Health, Safety and Risk Management office (EHS&RM) have the primary responsibility to
inspect for compliance with the MS4 General Permit.

b. For sites that are greater than one acre in size, the contractor will follow the TPDES
Construction General Permit TXR150000. The university and Construction General Permit
startup requirements for construction sites are in the University Construction Plan.
c. Illicit discharges from construction sites will be stopped immediately upon detection.

d. Erosion control BMPs (e.g., silt fence, filter logs, inlet protection, or stabilized entrances) must be maintained per TXR150000 and the university MS4 General Permit.

e. The director of FPDC or other responsible department or a designee will promptly notify the contractor to correct a deficiency or conduct the maintenance necessary to comply with the university’s MS4 General Permit. The university will maintain compliance with TPDES Construction General Permit TXR150000, the TPDES MS4 General Permit TXR040000, EPA requirements and all applicable surface water quality standards.

03.03 Post Construction Best Management Practices

a. Post construction stormwater management BMPs will be inspected and maintained on a routine basis to ensure effective performance.

b. Post construction BMPs will be installed and maintained on new development and redevelopment to protect water quality.

c. Detailed as-built drawings and operation and maintenance plans (if applicable) for all post development BMPs will be provided per the contract documents.

04. VIOLATIONS AND NONCOMPLIANCE

04.01 Notice of Violation – A Notice of Violation shall be sent to the persons responsible for the illicit discharge or noncompliance issue, will describe the location, and specify a timeframe to correct the issue.

04.02 Correction of Violation – If the timeframe in the Notice of Violation is not met, the EHS&RM, FPDC or other responsible department is authorized to stop the illicit discharge activity or take other appropriate and immediate actions to correct the noncompliance issues.

05. RESPONSIBILITIES

05.01 EHS&RM is responsible for implementing the requirements of the MS4 General Permit for the university. These requirements are included in the university’s SWMP approved by the TCEQ. The director of EHS&RM, or a designee, is authorized to take action to assure compliance with applicable regulations and policies to minimize improper stormwater discharge from university property in accordance with the provisions of the MS4 General Permit.

05.02 EHS&RM is responsible for overseeing compliance with the permit requirements and submitting annual reports to TCEQ. These TCEQ-approved SWMP actions are enforceable if not completed within the 5-year permit cycle.

05.03 EHS&RM has primary responsibility for implementing the SWMP, conducting inspections, training, education, outreach, and filing the annual report.

05.04 The Utilities Operations Department has the responsibility to operate and maintain the MS4 and BMPs on campus.
05.05 FPDC has the responsibility of attending construction-specific training, coordinating documentation with EHS&RM, and overseeing contractor compliance with all applicable provisions of the MS4 General Permit and Construction General Permit which include requirements for erosion control and illicit discharge control, to include the work to determine that the SWPPP was prepared by a person with credible certifications or skills.

05.06 All responsible departments have the responsibility of attending stormwater training, following up with corrective action on inspections, and reporting illicit discharges and other stormwater runoff issues.

06. REVIEWERS OF THIS UPPS

06.01 Reviewers of this UPPS include the following:

<table>
<thead>
<tr>
<th>Position</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director, Environmental Health, Safety &amp; Risk Management</td>
<td>April 1 E4Y</td>
</tr>
<tr>
<td>Associate Vice President for Facilities</td>
<td>April 1 E4Y</td>
</tr>
</tbody>
</table>

07. CERTIFICATION STATEMENT

This UPPS has been approved by the following individuals in their official capacities and represents Texas State policy and procedure from the date of this document until superseded.

Director, Environmental Health, Safety & Risk Management; senior reviewer of this UPPS

Vice President for Finance and Support Services

President
3.0 Procedure for Initiating Construction
1. **PURPOSE**

The purpose of this procedure is to guide Texas State University in initiating the TCEQ Construction General Permit TXR150000 for work on small and large construction sites. It also presents guidelines for conducting any dirt disturbing activities, regardless of the size of the site, to meet the university’s Construction Standards, the CGP, and university’s Municipal Separate Storm Sewer Permit (MS4), TXR040427.

2. **SCOPE**

This procedure applies to all projects where earthwork disturbing activities are to occur.

3. **PRECAUTIONS & LIMITATIONS**

These procedures are based on the current Construction General Permit language dated 2/19/13. The permit is renewed every 5 years by the TCEQ and the permit language can change.

4. **TERMS**

- Construction General Permit (CGP) – A general permit issued by the Texas Commission on Environmental Quality every 5 years and numbered TXR150000 that regulates sediment and erosion controls and permitting requirements for storm water discharges allowed from construction sites that are one acre or larger in size.
- Construction Site Notice – a notice on the TCEQ forms that is posted on construction site in a location where it is readily available for viewing by the general public, local, state and federal employees prior to commencement of construction activities. A copy of the signed and certified construction site notice must be provided to the operator of any MS4 receiving the discharge at least 2 days prior to commencement of construction activities.
- FSS VP – Financial and Support Services Vice President meets the regulatory requirements for signatory authority referenced in 30 TAC 305.44 for signing Notice of Intents for permit coverage. This person delegates authority to other qualified personnel to sign reports and letters for construction sites regulated by the Construction General Permit.
- Large Construction Activity – Construction activities including clearing, grading, and excavating that result in land disturbances of equal to or greater than five (5) acres of land. Large construction activity also includes the disturbance of less than five (5) acres of total land area that is part of a common plan of development or sale if the larger common plan will ultimately disturb greater than five (5) acres of land.
- Notice of Intent – A written submission to the executive director from an applicant requesting coverage under the Construction General Permit.
• Small Construction Sites – Construction activities including clearing, grading, and excavating that result in land disturbances of equal to or greater than one (1) acre and less than five (5) acres of land. Small construction activity also includes the disturbance of less than one (1) acre of total land area that is part of a common plan of development or sale if the larger common plan will ultimately disturb greater than one (1) acre and less than five (5) acres of land.

• Stormwater Pollution Prevention Plan (SWPPP) - A plan developed for construction sites greater than one acre in size prior to site disturbing activities. Required by Construction General Permit TXR150000.

5. **PROCEDURE**

1. Refer to the Decision Flow Diagram in **Attachment A** to determine what section of this procedure to follow for your construction or maintenance activity.

2. For Large Construction Sites, the following actions are required for the Contractor and Texas State prior to initiating earth disturbing activities:

   - **Contractor:**
     i. Prepare a Storm Water Pollution Prevention Plan (SWPPP) and sediment and erosion control drawings according to the specifications in the Texas State Construction Standards.
     ii. At least seven (7) days prior to beginning earth disturbing activities, submit to FPDC for review followed by review by EHSRM
     iii. Once approved by both Texas State offices, sign the certification page stating the SWPPP is complete (CEO or person delegated signs)
     iv. At least seven (7) days prior to beginning earth disturbing activities; file a Notice of Intent with TCEQ
     v. Post permit received from the TCEQ with site specific authorization number on the SWPPP sign at the front of the site.
     vi. Complete a Large Construction Site Notice for Primary Operators (see link above) and send to the Texas State, City of San Marcos or Texas DOT MS4 operator, depending on which MS4 drainage system is receiving the site’s stormwater runoff. Send at least two (2) days prior to beginning earth disturbing activities.
     vii. Prepare a letter of delegation, specific for the site, and signed by the CEO that authorizes specific site personnel to sign reports and storm water inspections. Submit the letter to the appropriate TCEQ office
and include the signed letter in the SWPPP. TCEQ example format is in Attachment B.

viii. Complete all requirements of the Texas State SWPPP start-up form, Attachment C to this procedure

ix. Request an inspection and SWPPP Start-Up form check off with Texas State FPDC and EHSRM offices.

x. Have one or more site personnel trained to conduct storm water site inspection. The names and qualifications of personnel making the inspections may be documented once in the SWPPP rather than being included with each report per III.F.7(e).

b. Texas State University:

i. Prepare a Secondary Operator Large Construction Site Notice and have it signed by the Finance and Support Services Vice President in accordance with 30TAC 305.44 signatory requirements, or alternatively by the Associate Director or Director of FPDC. CSN found at:
   http://www.tceq.texas.gov/permitting/stormwater/WQ_stormwater_construction_guidance.html#quick (Quick Links to Forms and Instructions)

ii. Review the SWPPP prepared by the Contractor and certify that it is complete (FPDC and EHSRM)

iii. Sign the certification page stating the SWPPP is complete and include this page in the SWPPP (EHSRM)

iv. Include in SWPPP our letter of delegation signed by the FSS VP stating who has authority to sign reports and site inspections (FPDC and EHSRM). TCEQ example format is in Attachment B.

v. Complete all requirements of the Texas State SWPPP start-up form, Attachment C, (FPDC and EHSRM)

3. For Small Construction Sites, the following actions are required for the Contractor and Texas State prior to initiating earth disturbing activities:

   • Contractor:

     i. Prepare a Storm Water Pollution Prevention Plan (SWPPP) and sediment and erosion control drawings according to the specifications in the Texas State Construction Standards.

     ii. Submit to FPDC for review followed by review by EHSRM at least seven (7) days prior to earth disturbing activities.

     iii. Once approved by both Texas State offices, sign the certification page stating the SWPPP is complete (CEO or person delegated signs)

     iv. Complete a Small Construction Site Notice and send to Texas State, City of San Marcos or Texas DOT MS4 operator, depending on which MS4 drainage system is receiving the site’s stormwater runoff. Send at
least two (2) days prior to beginning earth disturbing activities. [http://www.tceq.texas.gov/permitting/stormwater/WQ_stormwater_construction_guidance.html#quick](http://www.tceq.texas.gov/permitting/stormwater/WQ_stormwater_construction_guidance.html#quick) (Quick Links to Forms and Instructions). CSN to be signed in accordance with CGP requirements.

v. Prepare a letter of delegation, specific for the site, and signed by the CEO that authorizes specific site personnel to sign reports and storm water inspections. Submit the letter to the appropriate TCEQ office and include the signed letter in the SWPPP. TCEQ example format is in Attachment B.

vi. Complete all requirements of the Texas State SWPPP start-up form, Attachment C to this procedure

vii. Request an inspection and SWPPP start-up form check off with Texas State FPDC and EHSRM offices.

viii. Have one or more site personnel trained to conduct storm water site inspections. The names and qualifications of personnel making the inspections may be documented once in the SWPPP rather than being included with each report per III.F.7(e).

- Texas State:
  i. Contractor or Texas State to prepare a Construction Site Notice signed by FPDC Associate Director or Director. Send to Texas State, City of San Marcos or Texas DOT MS4 operator, depending on which MS4 drainage system is receiving the site’s stormwater runoff. Send at least two (2) days prior to beginning earth disturbing activities. [http://www.tceq.texas.gov/permitting/stormwater/WQ_stormwater_construction_guidance.html#quick](http://www.tceq.texas.gov/permitting/stormwater/WQ_stormwater_construction_guidance.html#quick) (Quick Links to Forms and Instructions).
  
  ii. Review the SWPPP prepared by the Contractor and certify that it is complete (FPDC and EHSRM)
  
  iii. Sign the certification page stating the SWPPP is complete and include this page in the SWPPP (EHSRM)
  
  iv. Prepare a site-specific letter of delegation, signed by the FSS VP, stating who has authority to sign reports and site inspections (FPDC and EHSRM). Submit the letter to the appropriate TCEQ office and include the signed letter in the SWPPP. TCEQ example format is in Attachment B.
  
  v. Complete all requirements of the Texas State SWPPP start-up form, Attachment C, (FPDC and EHSRM)

4. For Sites Less than 1-Acre where earthwork disturbing activities are to occur, the following actions are required for contractors and Texas State shops or staff prior to initiating earth disturbing activities:

i. Install erosion and sediment controls to prevent runoff of dirt during maintenance or construction (silt fence, berms, gabions, inlet protection, etc.).

ii. Maintain all erosion and sediment controls during construction.

iii. Provide necessary containment for all prohibited non-stormwater discharges (i.e. fuel, concrete washout, paint, chemicals)

iv. Stabilize soil if the disturbed soil areas will remain inactive for more than 14 days.

6. PERFORMANCE METRICS
   
   Not applicable

7. ATTACHMENTS
   
   Attachment A – Construction SOP Decision Diagram
   Attachment B – Letter of Delegation Example to submit to
   Attachment C – SWPPP Project Start-Up Form
Site Development or Redevelopment

Area of construction greater than 1 acre (use quantifiable method)

YES

Enter SOP for Small Sites

NO

Area of construction greater than 5 acres (use quantifiable method)

YES

Enter SOP for Large Sites

NO

Soil Disturbing Maintenance Activities (a)

OR

Or

Or

Soil will remain for more than 24 hrs.

YES

Enter SOP for Less Than 1 Acre Sites

NO

Soil volume more than 2 cubic yards

Located on a slope or near a storm drain

No additional action required

(a) Examples are trenching, potholing, excavation for utility maintenance, road repair, landscaping with soil or mulch piles, utility work with sand piles, etc.
Executive Director  
Texas Commission on Environmental Quality  
Storm Water and Pretreatment Team  
P.O. Box 13087, MC-148  
Austin, TX  78711-3087

Subject: Delegation of Signatories to Reports

Facility/Company/Site Name: ____________________  
TPDES Authorization Number: ________________________

Dear Executive Director:

This letter serves to designate the following people or positions as authorized personnel for signing reports, storm water pollution prevention plans, certifications or other information requested by the Executive Director or required by the general permit, as set forth by 30 TAC §305.128 (see page 2).

<table>
<thead>
<tr>
<th>Name or Position</th>
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I understand that this authorization does not extend to the signing of a Notice of Intent for obtaining coverage under a storm water general permit.

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in 30 TAC §305.44 (see page 2).

Sincerely,

_____________________________     _____________________________     _________
Signature                                                       Title                                               Date

_____________________________  (   )  -  
Printed Name                                                    Contact Number
Delegation of Signatories to Reports
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RELEVANT PROVISIONS

305.128(a) All reports requested by permits and other information requested by the executive director shall be signed by a person described in §305.44(a) of this title (relating to Signatories to Applications) or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) the authorization is made in writing by a person described in §305.44(a) of this title (relating to Signatories to Applications);

(2) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity or for environmental matters for the applicant, such as the position of plant manager, operator of a well or well field, environmental manager, or a position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

(3) the written authorization is submitted to the executive director.

(b) If an authorization under this section is no longer accurate because of a change in individuals or position, a new authorization satisfying the requirements of this section must be submitted to the executive director prior to or together with any reports, information, or applications to be signed by an authorized representative.

(c) Any person signing a report required by a permit shall make the certification set forth in §305.44(b) of this title (relating to Signatories to Applications).

305.44(a) All applications shall be signed as follows.

(1) For a corporation, the application shall be signed by a responsible corporate officer. For purposes of this paragraph, a responsible corporate officer means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. Corporate procedures governing authority to sign permit or post-closure order applications may provide for assignment or delegation to applicable corporate positions rather than to specific individuals.

(2) For a partnership or sole proprietorship, the application shall be signed by a general partner or the proprietor, respectively.

(3) For a municipality, state, federal, or other public agency, the application shall be signed by either a principal executive officer or a ranking elected official. For purposes of this paragraph, a principal executive officer of a federal agency includes the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., regional administrator of the EPA).

(b) A person signing an application shall make the following certification: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."
Attachment C

**SWPPP Project Start-up**

Contractors must meet four (4) TPDES requirements before soil-disturbing activities can commence on FPDC construction projects. This form provides the Contractor and Owner an acceptance of compliance with initial BMP’s and required paperwork for commencement of work on the project site.

Project name: ____________________________________________________________

Project Location: _________________________________________________________

General Contractor: _______________________________________________________

The Contractor is to initial items that are certified as complete and then review for concurrence with the Owner’s Designated Representative.

1. **Best Management Practices (BMP’s) applicable to this project have been inspected to ensure correct placement in accordance with the SWPPP and for proper installation according to specifications.**

   ______________________________________________________________________
   Initial by Contractor ______________________________________________________
   Initial by FPDC and EHSRM Representative

2. **The Storm Water Pollution Prevention Plan (SWPPP) is approved and on site.**

   ______________________________________________________________________
   Initial by Contractor ______________________________________________________
   Initial by FPDC and EHSRM Representative

3. **The TCEQ signed NOI or the TCEQ CSN’s are complete and posted for all permittees at the main entrance to the project site. Owner information is posted.**

   ______________________________________________________________________
   Initial by Contractor ______________________________________________________
   Initial by FPDC and EHSRM Representative

4. **Signed CSN is sent to the MS4 at least two days prior to commencing construction activities. A signed NOI is sent to the MS4 at least 7 days prior to beginning construction activities.**

   ______________________________________________________________________
   Initial by Contractor ______________________________________________________
   Initial by FPDC and EHSRM Representative

Having met the above requirements and in recognition of prior receipt of Notice to Proceed, the Contractor is authorized to commence work on site.

______________________________ ________________________________
Contractor EHSRM Construction Inspector

______________________________ ________________________________
OFPDC Resident Construction Manager Date
4.0 Procedure for Reviewing Sediment and Erosion Control Drawings and Stormwater Pollution Prevention Plans
1. **PURPOSE**

The purpose of this procedure is to guide staff on reviewing Erosion and Sediment Control Site Plans and Stormwater Pollution Prevention Plans (SWPPP) to ensure they meet campus standards and MS4 permit requirements.

2. **SCOPE**

This procedure applies to all new construction of one acre or larger that begins after November 12, 2014, the effective date of the university’s MS4 General Permit TXR040427.

3. **PRECAUTIONS & LIMITATIONS**

None

4. **TERMS**

- BMP – Best Management Practice generally in the form temporary or permanent controls and can include structural controls (silt fence, dikes, stabilized entrances) and site practices such as site phasing, leaving vegetation in place until removal is necessary, with the intent to reduce runoff of sediment and other pollutants.
- Erosion and Sediment Control Plan – A drawing or set of drawings generally in the Civil set of construction drawings that shows the temporary BMPs that will be installed on a site to control erosion and sediment runoff during construction. The plan may also show permanent BMPs to be installed for post construction water quality measures.
- Low Impact Development – site development practices that function to keep rainfall on the development as a resource for landscape or building water reuse, rather than becoming stormwater runoff to the MS4 drainage.
- MS4 – Municipal Separate Stormsewer System – a network of piping, drainage channels and engineered or natural features that conveys stormwater runoff to receiving water bodies including creeks and rivers.
- SWPPP – A plan prepared by a licensed or certified professional that describes all components required by the TCEQ Construction General Permit TXR150000.
- WQPP – A plan required by the Edwards Aquifer Habitat Conservation Plan describing means and methods to reduce the amount of impervious cover and associated nonpoint source pollution on campus.
5. **PROCEDURE**

5.1 When plans are received by the EHSRM office, the administrative assistant will send an e-mail to the EHSRM staff that the plans are available for review and information about the FPDC project manager and due date for the review.

5.2 The project will be assigned to a stormwater review staff by the EHSRM Director or his designee. The staff will have training in Erosion and Sediment Control Plan review.

5.3 The project will be entered into the MS4 Site Plan Review Tracking Table for Annual Reporting with the project name and EHSRM stormwater staff assigned to the project.

5.5 The EHSRM staff will review the plan drawings and detailed specifications using the checklist in *Attachment A*.

5.6 Any deficiencies or discrepancies will be noted on the FPDC comment form and sent to the FPDC project manager prior to the due date.

5.7 The e-mail with comment attachment will also be recorded in the MS4 Site Plan Review Tracking Table for Annual Reporting.

5.8 A SWPPP is required for all sites one acre or larger and EHSRM as the MS4 Operator requires *a minimum of one week* to review these plans prior to construction activities commencing.

5.9 Review SWPPP plans using the criteria in *Attachment B*.

5.10 For SWPPP plans involving demolition of existing structures, review the SWPPP for a section that includes removal and proper containment and disposal of wastes such as fluorescent bulbs, mercury switches, smoke detectors (some contain radioactive sources), fire extinguishers and any other chemicals, paints or oils.

5.11 Beginning in Year 3 of the MS4 permit (September 1, 2015), review site plans for post construction BMPs to meet water quality objectives.

5.12 Include review for Water Quality Protection Plan details for new development and redevelopment projects, as appropriate.
6. PERFORMANCE METRICS

Performance metrics will be measured by dividing the total number of site plans sent to the EHSRM office for review by the number of sets of comments returned to FPDC. 75% review is the goal of this Minimum Control Measure per the SWMP.

ATTACHMENTS/APPENDICS

Attachment A – Sediment and Erosion Control Plan Review Check List
Attachment B – SWPPP Review Checklist
Attachment A

Drainage Plan Review Checklist

Erosion and Sediment Control Drawings Plan Review Checklist

General

- Vicinity Map with scale legend and north arrow
- Existing and proposed topography shown with contours labeled with spot elevations in critical areas (2 foot minimum)
- Limits of Construction noted
- Existing drainage patterns with direction of flow arrows and 2-foot minimum contours
- Existing and proposed development facilities/improvements shown
- Location of Erosion and Sediment control practices as phased with construction
- Storm drain inlets adequately protected on site and within 200 feet of downslope areas of the site or additional distance as designated by owner
- Concrete washout, fuel storage areas and entrances clearly defined
- Post development water quality best management practices shown on drawing and design specifications included (design flow, contributing area of flow, sizing criteria).

Construction Notes & Detail

- Specific sequence of operation given for each phase.
- Site inspections and maintenance during construction are noted on the drawings and is in accordance with the TPDES Construction General Permit.
- Maintenance within 7 days or next rain event is noted on drawings.
- Note that modifications to the BMPs and Sediment and Erosion Control drawings is by the design engineer or certified SWPPP preparer only.
- Stabilization of inactive areas of the site within 14 days.
- Notes to include management of concrete washout water, mortar mix areas, in above ground tanks or lined boxes or pits.
- Notes to include management of fuels and chemicals in covered areas out of the rain or covered and secondary containment.
- Notes to include paint rinsewater to be contained and removed to offsite permitted facility. No disposal to Texas State sanitary sewer system, storm drains or ground.
- Note that no chemical storage within 100 feet of a drainage pathway or waterway.
- Standard Erosion Control Details for inlet protection, silt fence, rock berm, construction entrance, tree protection, erosion control blanket, etc.
- Note that storm drain curb boxes, area drains and any post construction in-ground BMPs (tanks, cistems) will be cleaned of debris and sediment prior to site completion.
Erosion and Sediment Control Practices

Practices Stabilizing Soil
- Seeding rates and seed types or mixtures properly shown on the drawings.
- Sequencing and timing provisions limit soil exposure to 14 days.
- Rolled Erosion Control Products (RECP’s) used are specified to the location and appropriate weight/tie down.
- All soil seed bed preparation and amendments are specified on the drawings or in the specifications.

Practices Controlling Sediment
- Maintenance requirements and dean out elevations established for all sediment control practices (50% capacity or as designated by Texas State)
- T-posts spacing to be 5 feet of less.

Drainage Study if draining to another MS4 (City of San Marcos, TxDOT) with detention information and supporting calculations which includes but not limited to:
- Hydrologic summary of existing and proposed conditions in tabular form:
- Area of each drainage area (in acres)
- Time of concentration
- C25 and C100 values
- Calculation for discharge on control structures (2-, 25-, 100-year storms), pipes, inlets, etc.
- Location and limits of water quality and detention structures.
- Grading and Drainage Plan
- Velocity at discharge
- Drainage channel easements – contain a 100-year storm, velocity less than 6 feet/sec or erosion can occur in the channel.
- For City of San Marcos follow code:
  - Section 5.1.1.3(b) Detention Required
  - Section 5.1.1.6(1) (a) Detention Basin to be located in drainage easements
  - Table 4.1.6.1 Impervious Cover Maximum
Attachment B

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Appendix K – Delegation of Authority
Appendix L – Construction Site Notice
5.0 Procedure for Final Stabilization and Termination of the CGP
1. **PURPOSE**

The purpose of this procedure is to provide clarification on when an owner/operator of a construction site can terminate coverage of the Construction General Permit (TCEQ TXR150000) for large and small construction sites.

2. **SCOPE**

This procedure applies to all new construction sites and redevelopment sites that are one acre or larger in size.

3. **PRECAUTIONS & LIMITATIONS**

These procedures are based on the current Construction General Permit TXR150000 language dated 2/19/13. The permit is renewed every 5 years by the TCEQ.

4. **TERMS**

- **Construction General Permit (CGP)** – A general permit issued by the Texas Commission on Environmental Quality every 5 years and numbered TXR150000 that regulates sediment and erosion controls and permitting requirements for storm water discharges allowed from construction sites that are one acre or larger in size.
- **Final Stabilization** – Construction site status where all soil disturbing activities have been completed and a uniform perennial vegetative cover with a density of at least 70% of the native background vegetative cover has been established.
- **Large Construction Activity** – Construction activities including clearing, grading, and excavating that result in land disturbances of equal to or greater than five (5) acres of land. Large construction activity also includes the disturbance of less than five (5) acres of total land area that is part of a common plan of development or sale if the larger common plan will ultimately disturb greater than five (5) acres of land.
- **Small Construction Sites** – Construction activities including clearing, grading, and excavating that result in land disturbances of equal to or greater than one (1) acre and less than five (5) acres of land. Small construction activity also includes the disturbance of less than one (1) acre of total land area that is part of a common plan of development or sale if the larger common plan will ultimately disturb greater than one (1) acre and less than five (5) acres of land.
- **Stormwater Pollution Prevention Plan (SWP3)** - A plan developed for construction sites greater than one acre in size prior to site disturbing activities. Required by Construction General Permit TXR150000.
- **Temporary Stabilization** – A condition where exposed soils or disturbed areas are provided a protective cover or other structural control to prevent the migration of
pollutants. Temporary stabilization may include temporary seeding, geotextiles, mulches, and other techniques to reduce or eliminate erosion until either permanent stabilization can be achieved or until further construction activities take place.

- Uniform coverage – a condition of vegetative cover in the CGP under the definition of Final Stabilization as evenly distributed without large bare areas.

5. **PROCEDURE**

5.1 Complete all soil disturbing activities at the site and finish all hardscape surfaces and permanent structures.

5.2 Final stabilization for the site: Stabilize all soil surfaces by using appropriate seed mixtures, sod or other permeable landscaping features specified in the landscaping or Sediment and Erosion Control design drawings and specs for the site. Must achieve 70% density of the original native vegetation with uniform coverage.

5.3 In times of drought, when water restrictions are imposed on establishing new vegetative cover, follow the most current permit requirements. For the CGP issued 2/19/13 interpretation of these requirements is in **Attachment A** and was prepared jointly by FPDC and EHSRM on 9/18/14.

5.4 **Attachment B** to this procedure shows examples of acceptable and non-acceptable temporary to final stabilization practices for Texas State.

!Note! This procedure will need to be reviewed in 2018, 2023 and every five years as the CGP is renewed and modified by the TCEQ.

6. **PERFORMANCE METRICS**

Performance metrics will be measured by evaluating final site stabilization practices and termination of CGP procedures.

7. **ATTACHMENTS**

**Attachment A** – Interpretation Paper: Stabilization of Soils for Termination of the Construction General Permit 9/18/14. FPDC and EHSRM

**Attachment B** – Examples of Acceptable and Non Acceptable Stabilization Coverage
Attachment A
Requirements to Terminate Coverage of the Construction General Permit
Prepared by FPDC and EHSRM 9/18/14

1. When can the Construction General Permit be terminated?

Termination of coverage is on page 20 of the CGP dated 2/19/13, Part II, Section F:

3. Termination of Coverage for Small Construction Sites and for Secondary Operators of Large Construction Sites. Each operator that has obtained automatic authorization and has not been required to submit an NOI must remove the site notice upon meeting any of the conditions listed below, complete the applicable portion of the site notice related to removal of the site notice, and submit a copy of the completed site notice to the operator of any MS4 receiving the discharge (or provide alternative notification as allowed by the MS4 operator, with documentation of such notification included in the SWP3), within 30 days of meeting any of the following conditions:

(a) final stabilization has been achieved on all portions of the site that are the responsibility of the permittee;

(b) a transfer of operational control has occurred (See Section II.F.4. below); or

(c) the operator has obtained alternative authorization under an individual or general TPDES permit.

Authorization to discharge under this general permit terminates immediately upon removal of the applicable site notice. Compliance with the conditions and requirements of this permit is required until the site notice is removed.

Interpretation: Once the contractor has completed final stabilization of the site by the above definition and as defined in final stabilization Item (2) below or has transferred operational control to Texas State as the (secondary operator), the contractor has met the requirements to terminate coverage under the CGP.
2. **What does final stabilization mean?**

Final Stabilization as defined by the CGP Part I, Section B, on page 7 is as follows:

**Final Stabilization - A construction site status where any of the following conditions are met:**

**A.** All soil disturbing activities at the site have been completed and a uniform (that is, evenly distributed, without large bare areas) perennial vegetative cover with a density of at least 70% of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.

**Interpretation:** The definition references achieving a uniform 70% vegetative stabilization. The definition further allows for equivalent permanent measures such as riprap, gabions or geotextiles. These are acceptable non-vegetative stabilization practices at TXST dependent on the condition of the site and drought conditions. A combination of these two can also be used which includes soil, seed and a geotextile cover to hold the seed in place and stabilize the surface until rain occurs to allow the seed to germinate and cover the geotextile. Temporary BMP’s such as silt fences and tri-dikes can be removed from the site once stabilization has occurred as described above.

The definition continues on page 8 with the following conditions for arid, semi-arid and drought-stricken areas:

(d) In arid, semi-arid, and drought-stricken areas only, all soil disturbing activities at the site have been completed and both of the following criteria have been met:

a. Temporary erosion control measures (for example, degradable rolled erosion control product) are selected, designed, and installed along with an appropriate seed base to provide erosion control for at least three years without active maintenance by the operator, and

b. The temporary erosion control measures are selected, designed, and installed to achieve 70% of the native background vegetative coverage within three years.

**Interpretation:** The attached map, referenced by the CGP, shows that Texas is located within a drought-stricken state therefore section (d) also applies. The application of a geotextile (for example, degradable rolled erosion control product or curlex) should be maintenance free by the operator for three years and selected, designed, and installed to achieve 70% coverage.

3. **Additional information on final Stabilization and perimeter controls**

Part III, Page 24 of the CGP describes the Stormwater Pollution Prevention Plan (SWPPP). On Section F, Contents of the SWPPP pages 28-29 stabilization measures are described:
D. In arid areas, semi-arid areas, or drought-stricken areas where the immediate initiation of stabilization measures after construction activity has temporarily or permanently ceased or is precluded by arid conditions, erosion control and stabilization measures must be initiated as soon as practicable. Where vegetative controls are not feasible due to arid conditions, the operator shall immediately install, and within 14 calendar days of a temporary or permanent cessation of work in any portion of the site complete, non-vegetative erosion controls. If non-vegetative controls are not feasible, the operator shall install temporary sediment controls as required in Paragraph (C) below.

E. In areas where temporary stabilization measures are infeasible, the operator may alternatively utilize temporary perimeter controls. The operator must document in the SWP3 the reason why stabilization measures are not feasible, and must demonstrate that the perimeter controls will retain sediment on site to the extent practicable. The operator must continue to inspect the BMPs at the frequency established in Section III.F.7.(a) for unstabilized sites.

F. If the initiation or completion of vegetative stabilization is affected by circumstances beyond the control of the permittee, vegetative stabilization must be initiated or completed as soon as conditions or circumstances allow it on the site. The requirement to initiate stabilization is triggered as soon as it is known with reasonable certainty that work will be stopped for 14 or more additional calendar days.

(iv) Final stabilization must be achieved prior to termination of permit coverage.

Interpretation: Stabilization should be described in detail in the SWPPP for the site. This is site specific depending on the ultimate use of the site. Acceptable alternate stabilization methods as described in item 2 and in the CGP (such as the use of riprap, gabions, or geotextiles) such as curlex are applicable without the need for perimeter controls onsite. For example, a dorm would probably want a finished tailored look following construction, where as a demolition site with future plans for construction on it again may go with a hard surface finish such as gravel or geotextile over a cover crop such as rye. The SWPPP stabilization section and landscaping drawings for the site should include the materials planned for all areas of the site and not covered by impermeable surfaces.

If stabilization of the disturbed soils is not feasible as described in the definition section, perimeter controls can be used and maintained by the operator. In either case, the primary operator (Contractor) can transfer operation of the CGP to the secondary operator (Texas State) and terminate coverage for themselves of the CGP.
U.S. Seasonal Drought Outlook
Drought Tendency During the Valid Period
Valid for September 18 - December 31, 2014
Released September 18, 2014

**KEY:**
- **Drought persists or intensifies**
- **Drought remains but improves**
- **Drought removal likely**
- **Drought development likely**

Author: Anthony Artusa, Climate Prediction Center, NOAA

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity).

For weekly drought updates, see the latest U.S. Drought Monitor.

NOTE: The tan area areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period although drought will remain.

The Green areas imply drought removal by the end of the period (D0 or none)
Attachment B

Photos of Successful and Unsuccessful Stabilization Practices

Photo 1: Stabilization using seed, curlex and gabions to contain and cover soil.
Photo 2: Stabilization using bullrock and gravel to cover soil and create a lay down area for another project.
Photo 3: Stabilization using seed and sod.
Photo 4: Stabilization using seed, sod and bulrock to stabilize a runoff channel.

Unstabilized soil prior to stabilization
Photo 5: No use of seed or gabions to allow grass to grow or minimize runoff on the slopes. Heavy foot traffic.
Photo 6: No stabilization. No use of seed or gabions to allow grass to grow and to keep cars from parking on the Geotextile.
6.0 Procedure for Post Construction BMP Selection and Review for Water Quality
1. **PURPOSE**

The purpose of this procedure is to guide staff on meeting the post construction BMP requirements of the TPDES MS4 General Permit for Texas State University issued, November 12, 2014 by TCEQ TXR 040427.

2. **SCOPE**

This procedure applies to all new construction of one acre or larger beginning in year 3 of the MS4 permit (September 1, 2015).

3. **PRECAUTIONS & LIMITATIONS**

The requirements in this procedure are specific to the Small MS4 General Permit and have not been previously presented by Texas State Construction Standards or the TCEQ Construction General Permit TXR 150000.

4. **TERMS**

- **BMP – Best Management Practice** generally in the form of an engineered structure or feature to remove stormwater pollutants from runoff.
- **Low Impact Development** – site development practices that function to keep rainfall on the development as a resource for landscape or building water reuse, rather than becoming stormwater runoff to the MS4 drainage system.
- **Impermeable Cover** - Cover that does not allow infiltration of water to the subsurface such as concrete or asphalt.
- **MS4 – Municipal Separate Stormsewer System** – a network of piping, drainage channels and engineered or natural features that conveys stormwater runoff to water bodies, creeks and rivers.
- **Pervious Cover** – Cover that allows infiltration of water to the subsurface. Examples are natural grass cover, porous pavers, and permeable asphalt.
- **Stormwater Management Program (SWMP)** – a written program prepared as a component of the Small MS4 General Permit Application and that is incorporated as part of the permit. SWMP accepted by the TCEQ on November 12, 2014.
- **Water Quality Best Management Practice** – Any single or combination of BMPs including those examples listed in Attachment A whose function is to improve water quality by retention of stormwater, reduction of pollutants or both.
- **Watershed** – the natural and manmade drainage areas where stormwater flows from higher elevations to lower elevations to receiving creeks and rivers.
- **Water Quality Protection Plan (WQPP)** – A plan required by the Edwards Aquifer Habitat Conservation Plan describing means and methods to reduce the amount of impervious cover and associated nonpoint source pollution on campus.
5. **PROCEDURE**

5.1 Review Construction Drawings to determine if a water quality BMP is present upstream or at the point of where the site discharges to the MS4.

5.2 Alternatively, site plans include LID features within the areas of construction to reduce/minimize the volume of runoff from the developed area to the MS4.

5.3 For sites draining to the City of San Marcos (CoSM) MS4, the volume of water discharge from the planned post development site cannot exceed the predevelopment site volume. Calculation based on the current CoSM Land Development Code specifications.

5.4 Volume of stormwater discharge reduction can be attained by detention prior to discharge or LID practices to reduce runoff in the developed area.

5.5 Include review for Water Quality Protection Plan details for new development and redevelopment projects, as appropriate.

6. **PERFORMANCE MERTICS**

   Performance metrics will be measured by dividing the total number of site plans sent to the EHSRM office for review by the number of sets of comments returned to FPDC. 75% review is the goal of this Minimum Control Measure per the SWMP.

7. **ATTACHMENTS/APPENDICS**

   Attachment A – Examples of Low Impact Development BMPs
Attachment A

Examples of Best Management Practices for Achieving
Post Construction Water Quality BMPs (a)

Rain Gardens and Bioretention
Vegetated Swales
Vegetated Filter Strips
Porous Pavement
Rainwater Harvesting
Treatment Trains
Green Roofs
Proprietary Systems
Constructed Wetland and Wet Ponds

Notes:

(a) City of San Marcos Green Infrastructure – LID Practices, November 2011